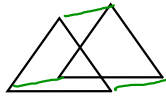


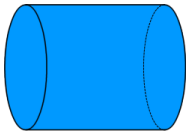
## Volume of Prisms and Cylinders p. 410

Prism- 3D Solid with an identical base and top connected with rectangular sides



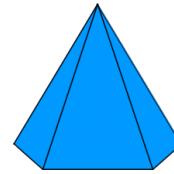
Triangular Prism

Cylinder 3D solid with circular base and top connected with one large rectangle



May 13-1:30 PM

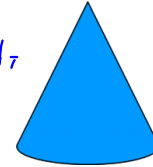
Pyramid - 3D solid with a Polygonal Base and triangular sides



Pentagonal Pyramid

Cone - Circular Base reaching a point above the center

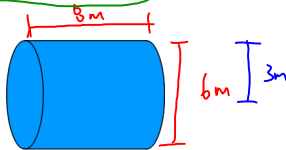
$$V = \frac{\pi r^2 \times H}{3}$$



May 13-1:38 PM

Formula for the Volume of any shape

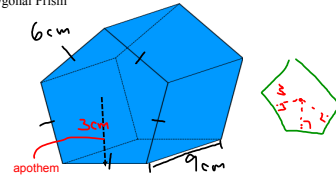
$$V = A_b \times H_t$$



$$\begin{aligned} V_{\text{cyl}} &= \pi r^2 \times H_t \\ V_{\text{cyl}} &= \pi (3)^2 \times 6 \\ V_{\text{cyl}} &= 3.14(9) \times 6 \\ V_{\text{cyl}} &= 226.08 \text{ m}^3 \end{aligned}$$

May 13-1:43 PM

Volume of Polygonal Prism



$$V = A_b \times H_t$$

$$V = \frac{P_a}{2} \times H_t$$

$$V = \frac{30(3)}{2} \times 9 \text{ cm}$$

$$V = \frac{90}{2} \times 9$$

$$V = 45 \times 9$$

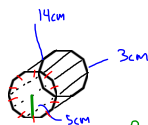
$$V = 405 \text{ cm}^3$$

$$\begin{aligned} P &= 5 \times 6 \\ &= 30 \text{ cm} \\ a &= 3 \text{ cm} \end{aligned}$$

$\frac{Pa}{2}$   
formula for  
area of any Polygon  
P = perimeter  
a = apothem

May 14-1:13 PM

Regular Decagonal Prism



$$V = A_b \times H_t$$

$$= \frac{P_a}{2} \times H_t$$

$$= \frac{30(5)}{2} \times 14 \text{ cm}$$

$$= \frac{150}{2} \times 14 \text{ cm}$$

$$= 75 \times 14 \text{ cm}$$

$$= 1050 \text{ cm}^2$$

$$\begin{aligned} P &= 10(14) \\ &= 140 \\ a &= 5 \text{ cm} \end{aligned}$$

Hmk.

p 413 & 414 q. 3b) 6-10

May 14-1:26 PM

Volume  
 $A_b \times H_t$

$$A_{\text{sq}} = s^2$$

$$A_{\text{REC}} = l \times w$$

$$A_{\text{TRI}} = \frac{b \times h}{2}$$

$$A_{\text{PARA}} = b \times h$$

$$A_{\text{TRAP}} = \frac{A + B}{2} (H)$$

$$A_{\text{CIR}} = \pi r^2$$

$$A_{\text{POLY}} = \frac{P_a}{2}$$

Nov 28-7:38 AM



Nov 29-8:38 AM